IN THE CLAIMS:

Following are the current claims. Claims 11, 14, 19, 22, 25, and 30 have been amended to independent form; other claims have NOT been amended in this response, and so any differences in those claims below and the current state of the claims is unintentional and in the nature of a typographical error:

1. (Original) A fixed wireless system utilizing Orthogonal Frequency Division Multiplexing (OFDM) techniques, the fixed wireless system comprising:
a wireless base unit;
a plurality of fixed wireless remote units;
a plurality of wireless voice traffic channels available between the wireless base unit and the plurality of fixed wireless remote units;
a plurality of wireless data traffic channels available between the wireless base unit and the plurality of fixed wireless remote units;
each wireless traffic channel being identifiable by a unique combination of frequency and time slots;
each wireless data traffic channel for carrying high speed data in addressed data packets to and from the plurality of fixed wireless remote units; and
each wireless voice traffic channel being assignable to a voice communication call involving one of the plurality of fixed wireless remote units for carrying voice data of the voice communication call.

2. (Original) The fixed wireless system according to claim 1, wherein each wireless voice traffic channel is dedicated for carrying voice data of a voice communication call upon being assigned.

3. (Original) The fixed wireless system according to claim 1, wherein each wireless voice traffic channel is deassignable during a voice communication call.

4. (Original) The fixed wireless system according to claim 1, wherein data in each unique combination of frequency and time slots comprises a plurality of modulated carriers.

5. (Original) A method for use in communicating data in a wireless communication system utilizing Orthogonal Frequency Division Multiplexing (OFDM) techniques, the method comprising:

providing a plurality of wireless data traffic channels for carrying high speed data in addressed data packets, each wireless data traffic channel being identifiable by a unique combination of frequency and time slots; and

providing a plurality of wireless voice traffic channels for carrying voice data, each wireless voice traffic channel being identifiable by a unique combination of frequency and time slots, each wireless voice traffic channel being assignable to a voice communication call for carrying voice data of the voice communication call.

6. (Original) The method according to claim 5, wherein providing the plurality of wireless voice traffic channels further comprises providing wireless voice traffic channels that are dedicated to carry voice data of a voice communication call upon being assigned.

7. (Original) The method according to claim 5, wherein providing the plurality of wireless voice traffic channels further comprises providing wireless voice traffic channels that are deassignable during a voice communication call.

8. (Original) The method according to claim 5, wherein providing a plurality of wireless voice and data traffic channels involves providing traffic channels that carry data on a plurality of modulated carriers for each unique combination of frequency and time slot in use.

9. (Original) A method of receiving data in a wireless communication system, the method comprising:

receiving radio frequency (RF) OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

downconverting the RF OFDM communication signals for producing downconverted OFDM communication signals;

sampling the downconverted OFDM communication signals for producing OFDM communication signal samples;

for each frequency/time slot combination associated with the voice traffic channel:

applying a Fast Fourier Transform (FFT) to the OFDM communication signal samples for producing a plurality of modulated tones; and

demodulating the plurality of modulated tones for producing voice data of the voice communication call.

10. (Original) The method according to claim 9, further comprising:

receiving RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;

for each frequency/time slot combination associated with the data traffic channel:

applying an FFT to the OFDM communication signal samples for producing a plurality of modulated tones; and

demodulating the plurality of modulated tones for producing high speed data in addressed data packets.

11. (Currently Amended) ~~The method according to claim 10, further comprising~~ A method of receiving data in a wireless communication system, the method comprising:

receiving radio frequency (RF) OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

downconverting the RF OFDM communication signals for producing downconverted OFDM communication signals;

sampling the downconverted OFDM communication signals for producing OFDM communication signal samples;

for each frequency/time slot combination associated with the voice traffic channel:

applying a Fast Fourier Transform (FFT) to the OFDM communication signal samples for producing a plurality of modulated tones;

demodulating the plurality of modulated tones for producing voice data of the voice communication call;

receiving RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;

for each frequency/time slot combination associated with the data traffic channel:

applying an FFT to the OFDM communication signal samples for producing a plurality of modulated tones; and

demodulating the plurality of modulated tones for producing high speed data in addressed data packets; and

repeating the following steps for each of a plurality of addressed data packets:

comparing a destination address to the addressed data packet with a predetermined address;

accepting the addressed data packet if a match exists between the destination address and the predetermined address; and

discarding the addressed data packet if the destination address and the predetermined address do not match.

12. (Original) The method according to claim 9, wherein demodulating the plurality of modulated tones comprises producing encoded and compressed data.

13. (Original) The method according to claim 9, wherein demodulating the plurality of modulated tones comprises producing encoded and compressed data, the method further comprising:

decoding the encoded and compressed data for producing compressed data; and

decompressing the compressed data for producing the voice data of the voice communication call.

14. (Currently Amended) ~~The method according to claim 13,~~ A method of receiving data in a wireless communication system, the method comprising:

receiving radio frequency (RF) OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

downconverting the RF OFDM communication signals for producing downconverted OFDM communication signals;

sampling the downconverted OFDM communication signals for producing OFDM communication signal samples; and

for each frequency/time slot combination associated with the voice traffic channel:

applying a Fast Fourier Transform (FFT) to the OFDM communication signal samples for producing a plurality of modulated tones; and

demodulating the plurality of modulated tones for producing voice data of the voice communication call,

wherein demodulating the plurality of modulated tones comprises producing encoded and compressed data, the method further comprising

decoding the encoded and compressed data for producing compressed data; and

decompressing the compressed data for producing the voice data of the voice communication call, and

wherein demodulating comprises demodulating involving 16-Quadrature Amplitude Modulation (QAM), wherein decoding comprises decoding involving Reed-Solomon block codes, and wherein decompressing comprises decompressing involving Code Excited Linear Predictive (CELP) decompression.

15. (Original) A method of transmitting data in a wireless communication system, comprising:

for each frequency/time slot combination associated with a voice traffic channel:

modulating a plurality of tones with voice data of a voice communication call that is assigned to the voice traffic channel;

applying and Inverse Fast Fourier Transform (IFFT) to the plurality of modulated tones for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signals samples;

converting the OFDM communication signal samples to OFDM communication signals;

upconverting the OFDM communication signals for producing radio frequency (RF) OFDM communication signals; and

transmitting the RF OFDM communication signals over the voice traffic channel.

16. (Original) The method according to claim 15, further comprising:

for each frequency/time slot combination associated with a data traffic channel:

modulating a plurality of tones with high speed data in addressed data packets;

applying an IFFT to the plurality of tones for producing OFDM communication signal samples;

converting the OFDM communication signal samples to OFDM communication signals;

upconverting the OFDM communication signals for producing RF OFDM communication signals; and

transmitting the RF OFDM communication signals over the data traffic channel.

17. (Original) The method according to claim 15, wherein modulation the plurality of tones comprises modulating a phase and amplitude of each one of the plurality of modulated tones.

18. (Original) The method according to claim 15, further comprising:

compressing the voice data for producing compressed voice data;

prior to compressing, encoding the compressed voice data for producing encoded and compressed voice data; and

wherein modulating the plurality of tones comprises modulating a phase and amplitude of each one of the plurality of modulated tones with the encoded and compressed voice data.

19. (Currently Amended) ~~The method according to claim 18,~~ <u>A method of transmitting data in a wireless communication system, comprising:</u>

<u>for each frequency/time slot combination associated with a voice traffic channel:</u>

<u>modulating a plurality of tones with voice data of a voice communication call that is assigned to the voice traffic channel;</u>

<u>applying and Inverse Fast Fourier Transform (IFFT) to the plurality of modulated tones for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signals samples;</u>

<u>converting the OFDM communication signal samples to OFDM communication signals;</u>

<u>upconverting the OFDM communication signals for producing radio frequency (RF) OFDM communication signals;</u>

<u>transmitting the RF OFDM communication signals over the voice traffic channel;</u>

<u>compressing the voice data for producing compressed voice data;</u>

<u>prior to compressing, encoding the compressed voice data for producing encoded and compressed voice data; and</u>

<u>wherein modulating the plurality of tones comprises modulating a phase and amplitude of each one of the plurality of modulated tones with the encoded and compressed voice data;</u>

wherein modulating comprises modulating using 16-Quadrature Amplitude Modulation (QAM), wherein encoding comprises using Reed-Solomon block codes, and wherein compressing comprises using Code Excited Linear Predictive (CELP) compression.

20. (Original) A wireless receiver, comprising:

a receiver front end, said receiver front end operative to receive RF OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

a radio frequency (RF) downconverter, said RF downconverter operative to downconvert the RF OFDM communication signals for producing downconverted OFDM communication signals;

an analog-to-digital converter (ADC), sand ADC operative to convert the downconverted OFDM communication signals into OFDM communication signal samples;

a Fast Fourier Transform (FFT) processor, said FFT processor operative to apply and FFT to the OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel; and

a demodulator, said demodulator operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing voice data of the voice communication call.

21. (Original) The wireless receiver according to claim 20, further comprising:

said receiver front end being further operative to receive RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;

said FFT processor being further operative to apply and FFT to the RF OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel; and

said demodulator being further operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the data

traffic channel for producing the high speed data in addressed data packets.

22. (Currently Amended) ~~The wireless receiver according to claim 21, further comprising:~~ A wireless receiver, comprising:

a receiver front end, said receiver front end operative to receive RF OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

a radio frequency (RF) downconverter, said RF downconverter operative to downconvert the RF OFDM communication signals for producing downconverted OFDM communication signals;

an analog-to-digital converter (ADC), sand ADC operative to convert the downconverted OFDM communication signals into OFDM communication signal samples;

a Fast Fourier Transform (FFT) processor, said FFT processor operative to apply and FFT to the OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel;

a demodulator, said demodulator operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing voice data of the voice communication call;

said receiver front end being further operative to receive RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;

said FFT processor being further operative to apply and FFT to the RF OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel;

said demodulator being further operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel for producing the high speed data in addressed data packets;

and

a processor, said processor operate to compare a destination address of the addressed data packet with a predetermined address, to accept the addressed data packet if a match exists between the destination address and the predetermined address, and to discard the addressed data packet if the destination address and the predetermined address do not match.

23. (Original) The wireless receiver according to claim 20, further comprising:

said demodulator being further operative for producing encoded and compressed data for each one of the plurality of modulated tones.

24. (Original) The wireless receiver according to claim 20, further comprising:

said demodulator being further operative for producing encoded and compressed data for each one of the plurality of modulated tones;

a decoder, said decoder operative to decode the encoded and compressed data for producing compressed data; and

a decompressor, said decompressor operative to decompress the compressed data for producing the voice data.

25. (Currently Amended) ~~The wireless receiver according to claim 24, further comprising:~~ A wireless receiver, comprising:

a receiver front end, said receiver front end operative to receive RF OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

a radio frequency (RF) downconverter, said RF downconverter operative to downconvert the RF OFDM communication signals for producing downconverted OFDM communication signals;

an analog-to-digital converter (ADC), sand ADC operative to convert the downconverted OFDM communication signals into OFDM communication signal samples;

a Fast Fourier Transform (FFT) processor, said FFT processor operative to apply and FFT to the OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel; and

a demodulator, said demodulator operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing voice data of the voice communication call, said demodulator being further operative for producing encoded and compressed data for each one of the plurality of modulated tones, said demodulator comprising a 16-Quadrature Amplitude Modulated (QAM)-based demodulator;

a decoder, said decoder operative to decode the encoded and compressed data for producing compressed data, said decoder comprising a Reed-Solomon decoder; and

a decompressor, said decompressor operative to decompress the compressed data for producing the voice data, said decompressor comprising a Code Excited Linear Predictive (CELP) decompressor.

26. (Original) A wireless transmitter, comprising:

a modulator, said modulator operative to modulate a plurality of tones with voice data of a voice communication call for each frequency/time slot combination associated with a voice traffic channel that is assigned to the voice communication call;

an Inverse Fast Fourier Transform (IFFT) processor, said IFFT processor operative to apply an IFFT to the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signals samples;

a digital-to-analog converter (DAC), said DAC operative to convert the OFDM communication signal samples into OFDM communication signals;

a radio frequency (RF) upconverter, said RF upconverter operative to upconvert the OFDM communication signals for producing radio frequency (RF) OFDM communication signals; and

a transmitter front end, said transmitter front end operative to transmit the RF OFDM communication signals over the voice traffic channel.

27. (Original) The wireless transmitter according to claim 26, further comprising:

said modulator being further operative to modulate a plurality of tones with high speed data for each frequency/time slot combination associated with a traffic channel, the high speed data being carried in addressed data packets;

said IFFT processor being further operative to apply the IFFT to the plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel for producing OFDM communication signals; and

said transmitter front end being further operative to transmit the RF OFDM communication signals over the data traffic channel.

28. (Original) The wireless transmitter according to claim 26, further comprising:

said modulator comprising a phase and amplitude modulator.

29. (Original) The wireless transmitter according to claim 26, further comprising:

a vocoder, said vocoder operative to compress the voice data for producing compressed voice data;

a block encoder, said block encoder operative to encode the compressed voice data for producing encoded and compressed voice data; and

said modulator being further operative to modulate a phase and amplitude of each one of the plurality of tones with encoded and compressed voice data.

30. (Currently Amended) ~~The wireless transceiver according to claim 29, further comprising:~~ A wireless transmitter, comprising:

a modulator, said modulator operative to modulate a plurality of tones with voice data of a voice communication call for each frequency/time slot combination associated with a voice traffic channel that is assigned to the voice communication call;

an Inverse Fast Fourier Transform (IFFT) processor, said IFFT processor operative to apply an IFFT to the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signals samples;

a digital-to-analog converter (DAC), said DAC operative to convert the OFDM communication signal samples into OFDM communication signals;

a radio frequency (RF) upconverter, said RF upconverter operative to upconvert the OFDM communication signals for producing radio frequency (RF) OFDM communication signals; and

a transmitter front end, said transmitter front end operative to transmit the RF OFDM communication signals over the voice traffic channel

a vocoder, said vocoder operative to compress the voice data for producing compressed voice data;

a block encoder, said block encoder operative to encode the compressed voice data for producing encoded and compressed voice data; and

said modulator being further operative to modulate a phase and amplitude of each one of the plurality of tones with encoded and compressed voice data, and said modulator comprising a 16-Quadrature Amplitude Modulation (QAM) modulator;

said block encoder comprising a Reed-Solomon block coder; and

said vocoder comprising a Code Excited Linear Predictive (CELP) vocoder.